National Institute of Environmental Health Sciences

Climate change and infectious diseases in North America: The road ahead

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Abstract:

Global climate change is inevitable--the combustion of fossil fuels has resulted in a buildup of greenhouse gases within the atmosphere, causing unprecedented changes to the earth's climate. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change suggests that North America will experience marked changes in weather patterns in coming decades, including warmer temperatures and increased rainfall, summertime droughts and extreme weather events (e.g., tornadoes and hurricanes). Although these events may have direct consequences for health (e.g., injuries and displacement of populations due to thermal stress), they are also likely to cause important changes in the incidence and distribution of infectious diseases, including vector-borne and zoonotic diseases, water-and food-borne diseases and diseases with environmental reservoirs (e.g., endemic fungal diseases). Changes in weather patterns and ecosystems, and health consequences of climate change will probably be most severe in far northern regions (e.g., the Arctic). We provide an overview of the expected nature and direction of such changes, which pose current and future challenges to health care providers and public health agencies.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2263103

Resource Description

Communication: ☑

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☑

audience to whom the resource is directed

Health Professional

Exposure : ☑

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Extreme Weather Event, Precipitation, Temperature

Geographic Feature: ☑

resource focuses on specific type of geography

Arctic

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Non-U.S. North America

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease, Respiratory Effect

Infectious Disease: Airborne Disease, Foodborne/Waterborne Disease, Vectorborne Disease, Zoonotic Disease

Airborne Disease: Blastomycosis, Coccidioidomycosis (Valley Fever), Cryptococcosis, Influenza, Respiratory Synctial Virus (RSV), Other Airborne Disease

Airborne Disease (other): Streptococcus pneumoniae;Legionella

Foodborne/Waterborne Disease: Campylobacteriosis, Cryptosporidiosis, E. coli, Giardiasis, Salmonellosis, Shigellosis, Vibrioses

Foodborne/Waterborne Disease (other): Clostridium botulinum

Vectorborne Disease: Mosquito-borne Disease, Tick-borne Disease

Mosquito-borne Disease: Chikungunya, Dengue, Malaria, West Nile Virus

Tick-borne Disease: Lyme Disease

Zoonotic Disease: Rabies, Tularemia

Respiratory Effect: Bronchitis/Pneumonia, Other Respiratory Effect

Respiratory Condition (other) : Legionella

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content